

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

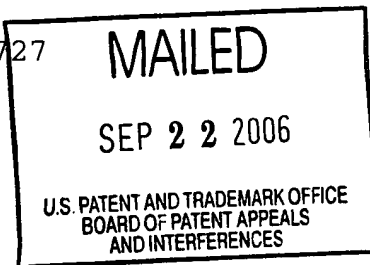
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER KNOLL, JOANNES ESCALER, and REINHOLD FIESS

Appeal No. 2006-0323
Application No. 10/088,727

ON BRIEF



Before HAIRSTON, JERRY SMITH, and BARRY, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 16-42, which constitute all the claims pending in this application.

The disclosed invention pertains to a display apparatus for a vehicle. The display apparatus comprises a projection unit arranged on a vehicle roof or on an inside mirror of the vehicle and a display surface, which is outside the projection unit, onto which a real image is generated by the projection unit.

Representative claim 16 is reproduced as follows:

16. A display apparatus in a vehicle, comprising:

a projection unit arranged at least one of on a vehicle roof and on an inside mirror of the vehicle; and

a display surface, which is outside the projection unit, onto which a real image is generated by the projection unit.

The examiner relies on the following references:

| | | |
|----------------------|-----------|-----------------------|
| Jost et al. (Jost) | 4,919,517 | Apr. 24, 1990 |
| Hwang et al. (Hwang) | 6,317,170 | Nov. 13, 2001 |
| Kleinschmidt | 6,750,832 | June 15, 2004 |
| | | (filed June 21, 1999) |

Claims 16-42 stand rejected under 35 U.S.C. § 103(a). As evidence of obviousness the examiner offers Jost in view of Kleinschmidt with respect to claims 16-26 and 31-42, and Hwang is added to this combination with respect to claims 27-30.

Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answers for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answers.

It is our view, after consideration of the record before us, that the examiner's rejections of the claims on appeal are not supported by the evidence on this record. Accordingly, we reverse.

We consider first the rejection of claims 16-26 and 31-42 based on Jost and Kleinschmidt. The examiner essentially finds that Jost teaches a projection unit (5) and a display surface (11) as claimed except that Jost does not teach what kind of image is generated on the display surface. The examiner cites Kleinschmidt as teaching the display of real images and virtual images within a vehicle. The examiner finds that it would have been obvious to the artisan to modify Jost to display a real image on the display surface by a projection unit as taught by Kleinschmidt [answer, pages 4-6].

Appellants argue that the references relied upon do not disclose or suggest the projection of a real image. Specifically, appellants argue that Jost produces a virtual image on the windshield via a mirror. Appellants further argue that a mirror surface, as taught by Jost, is not suitable for generating a real image. Appellants assert that nothing in the Kleinschmidt reference suggests the projection of a real image as claimed. Finally, appellants argue that the examiner's rejection is based on conclusory hindsight, reconstruction and speculation [brief, pages 9-13].

The examiner responds by providing definitions of the terms "real image" and "virtual image" taken from Wikipedia. The examiner notes that these definitions contradict appellants' assertion that a mirror cannot be used to generate a real image. The examiner reiterates that since Kleinschmidt teaches the desirability of real images in vehicles, it would have been

obvious to the artisan to combine Jost with Kleinschmidt to achieve the claimed invention [answer, pages 11-14].

Appellants respond that this case should be remanded to the examiner so that appellants are given a full and fair opportunity to respond to the new references and definitions cited by the examiner. Appellants reiterate their position that Jost fails to teach the generation of a real image onto a display surface on the instrument panel of the vehicle via a projection unit arranged on the vehicle roof as claimed. Appellants substantially repeat the arguments made in the main brief [reply brief].

When this application was previously on appeal before us, we determined that a remand of this application to the examiner was appropriate. In particular, the remand stated the following:

We will remand this application to the examiner as requested by appellants. The patentability of the claims on appeal cannot be determined without a clear definition of what is meant by the term "real image." The definition of this term in Wikipedia could possibly suggest that a real image is present at mirror 11 or windshield 1 of Jost. An additional question would then arise as to whether either of these surfaces can be considered to be "a display surface" within the meaning of the claims on appeal. These questions need to be argued by appellants and the examiner in order for us to have an appropriate record to decide this appeal. The answer to these questions could eliminate the need to rely on Kleinschmidt to teach the generation of real images. Therefore, we remand this application to the examiner for a consideration of whether a real image within the meaning of the claims is generated upon surfaces 1 or 11 of Jost and whether surfaces 1 or 11 of Jost can meet the recitation of a "display surface" in the claims.

The examiner should address these questions in the form of a supplemental examiner's answer which fully elaborates on these questions. Appellants will be given the usual opportunity to respond to the points raised in the examiner's answer [Remand, page 5].

The examiner, unfortunately, has essentially responded to this remand by observing that the consideration of these questions is not relevant to the issues on appeal. The examiner now admits that Jost teaches only a virtual image being made at a surface, but the examiner argues that Kleinschmidt provides motivation for either using a surface of Jost that is capable of producing a real image as is to display a real image or to modify Jost to have a surface that is capable of producing a real image as taught by Kleinschmidt [supplemental answer, pages 6-7]. Therefore, in response to the remand, the examiner has essentially reiterated the arguments that were already of record in this case.

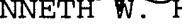
Appellants responded to the remand and the examiner's position by noting that since Jost only teaches the generation of a virtual image, an observer at the windshield 1 looking at the mirror 11 in Jost would also only see a virtual image. Appellants assert, therefore, that a real image is not generated upon either surface 1 or 11 of Jost. With respect to Kleinschmidt, appellants argue that it only teaches a rear projection and there is no teaching of how to front project a real image using a projection unit situated at the roof of a vehicle. Appellants assert that the combination of references

only suggests front projection for a virtual image and not a real image [replacement reply brief].

We will not sustain the examiner's rejections of the claims on appeal for essentially the reasons argued by appellants in the briefs. Although the examiner cites Kleinschmidt as teaching the advantages of generating a real image and a virtual image, Kleinschmidt fails to teach the generation of the real image in the manner recited in the claimed invention. In other words, there is no suggestion in Kleinschmidt to generate a real image using a display surface outside a projection unit as claimed. Our remand was based on the possibility that a real image might be generated on the surface 1 or 11 of Jost based on its definition cited by the examiner. Since the examiner insists, however, that Jost only generates a virtual image, and since appellants have responded to the remand by arguing that a real image is not generated upon surfaces 1 or 11 of Jost, we are forced to reverse the examiner's rejections based on this record.

In summary, we have not sustained either of the examiner's rejections of the claims on appeal. Therefore, the decision of the examiner rejecting claims 16-42 is reversed.

REVERSED


KENNETH W. HAIRSTON
Administrative Patent Judge

Jerry Smith
JERRY SMITH
Administrative Patent Judge

BOARD OF PATENT
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~~LANCE LEONARD BARRY~~
~~Administrative Patent Judge~~

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